

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Chloral hydrate, 100 g

Print date: 14.04.2015

Product code: 9991228

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Chloral hydrate, 100 g

CAS No: 302-17-0
Index No: 605-014-00-6
EC No: 206-117-5

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Laboratory chemicals

1.3. Details of the supplier of the safety data sheet**Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH
Street: Im Forstgarten 1
Place: D-66459 Kirkel
Internet: www.conatex.com

Supplier

Company name: Carbolution Chemicals GmbH
Street: Im Stadtwald, Gebäude A1.2
Place: D-66123 Saarbrücken
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232
e-mail: michael.bauer@carbolution-chemicals.de
Internet: www.carbolution-chemicals.de

1.4. Emergency telephone number: +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: T - Toxic, Xi - Irritant
R phrases:
Toxic if swallowed.
Irritating to eyes and skin.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:
Acute toxicity: Acute Tox. 3
Serious eye damage/eye irritation: Eye Irrit. 2
Skin corrosion/irritation: Skin Irrit. 2
Hazard Statements:
Toxic if swallowed.
Causes serious eye irritation.
Causes skin irritation.

2.2. Label elements**Hazardous components which must be listed on the label**

2,2,2-trichloroethane-1,1-diol, chloral hydrate

Signal word: Danger
Pictograms: GHS06

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Hazard statements

H301 Toxic if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: C₂H₃Cl₃O₂
Molecular weight: 165,40

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
206-117-5	2,2,2-trichloroethane-1,1-diol, chloral hydrate	100 %
302-17-0	T - Toxic, Xi - Irritant R25-36/38	
605-014-00-6	Acute Tox. 3, Eye Irrit. 2, Skin Irrit. 2; H301 H319 H315	

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. Medical treatment necessary.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust. Do not breathe dust.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

Advice on storage compatibility

No special measures are necessary.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection

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programme. Wash hands and face before breaks and after work and take a shower if necessary.
When using do not eat or drink.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	colourless
Odour:	No data available

	Test method
pH-Value:	4 100 g/l

Changes in the physical state

Melting point:	57 °C
Initial boiling point and boiling range:	96 °C
Sublimation point:	No data available
Softening point:	No data available
Flash point:	not applicable

Flammability

Solid:	not determined
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	No data available

Auto-ignition temperature

Solid:	not determined
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidizing.

Vapour pressure: (at 25 °C)	20 hPa
Vapour pressure:	No data available
Density:	1,424 g/cm ³
Water solubility: (at 20 °C)	6600 g/L

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Solubility in other solvents

not determined

Partition coefficient: 0,99

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

Vapour density: not determined

Evaporation rate: not determined

Solvent separation test: No data available

Solvent content: No data available

9.2. Other information

Solid content: not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

Toxicological data are not available.

Acute toxicity

Toxicological data are not available.

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
302-17-0	2,2,2-trichloroethane-1,1-diol, chloral hydrate				
	oral	ATE	100 mg/kg		

Irritation and corrosivity

No data available

Sensitising effects

No data available

Severe effects after repeated or prolonged exposure

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

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Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

Specific effects in experiment on an animal

No data available

Additional information on tests

This mixture is classified as hazardous according to 1999/45/EC. Special hazards arising from the substance or mixture!

Practical experience

Observations relevant to classification

No data available

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity: The classification criteria for this hazard class are not met by definition.

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated

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packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****Other applicable information (land transport)**

No dangerous good in sense of these transport regulations.

Inland waterways transport (ADN)**Other applicable information (inland waterways transport)**

No dangerous good in sense of these transport regulations.

Marine transport (IMDG)**Other applicable information (marine transport)**

No dangerous good in sense of these transport regulations.

Air transport (ICAO)**Other applicable information (air transport)**

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information****Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

Water contaminating class (D): 3 - highly water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

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Relevant R-phrases (Number and full text)

- 25 Toxic if swallowed.
36/38 Irritating to eyes and skin.

Relevant H- and EUH-phrases (Number and full text)

- H301 Toxic if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.